

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
**THE RECLAMATION BOARD**

**PERMIT NO. 18159-1 BD**

**This Permit is issued to:**

Sacramento Area Flood Control Agency  
1007 7th Street  
7th Floor  
Sacramento, California 95814

To strengthen the levee by constructing a slurry cutoff wall along approximately 12,000 linear-feet and reconstructing 500 linear-feet of waterside levee slope of the south bank levee of Natomas Cross Canal and by constructing a slurry cutoff wall along 500 linear-feet of the east bank levee of the Sacramento River to an approximate depth of 80 feet below the existing levee crown elevation. The project is located north of Sacramento, west of Highway 99 and north of Sankey Road (Section 23,24,13&18, T11N, R3&4E, MDB&M, Reclamation District 1000, Natomas Cross Canal, Sutter County).

**NOTE:** Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project described above.

**(SEAL)**

Dated: \_\_\_\_\_

\_\_\_\_\_  
General Manager

**GENERAL CONDITIONS:**

**ONE:** This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

**TWO:** Only work described in the subject application is authorized hereby.

**THREE:** This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

**FOUR:** The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the

permittee shall conform to all requirements of the Department and The Reclamation Board.

**FIVE:** Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Reclamation Board.

**SIX:** This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

**SEVEN:** It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

**EIGHT:** This permit does not establish any precedent with respect to any other application received by The Reclamation Board.

**NINE:** The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

**TEN:** The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

**ELEVEN:** The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

**TWELVE:** Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Reclamation Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

#### **SPECIAL CONDITIONS FOR PERMIT NO. 18159-1 BD**

**THIRTEEN:** This permit is not valid until the Board has been granted written permission by the U. S Army Corps of Engineers to allow the federal flood control project to be modified by installing a slurry cutoff wall as described by this permit.

**FOURTEEN:** This permit is not valid until the Sacramento Area Flood Control Agency agrees to hold harmless, indemnify and defend The Reclamation Board, Department of Water Resources and State of California through inclusion of an indemnification clause.

**FIFTEEN:** Prior to construction, the permittee shall provide the Sacramento and San Joaquin Drainage District, acting by and through The Reclamation Board of the State of California, a permanent easement granting all flood control rights upon, over and across the property to be occupied by the existing or to-be-reconstructed levee including slurry wall. The easement must include the area within the floodway, the levee section, the area fifty (50) feet in width adjacent to the landward levee toe if the area is not presently encumbered by a Reclamation Board easement. For information regarding existing Reclamation Board easements and required easements, please contact Jeff Fong at (916) 657-2831.

**SIXTEEN:** All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of The Reclamation Board.

**SEVENTEEN:** The maximum crown elevations of the levee reach addressed by this permit shall be

limited to the maximum crown elevations shown for the same reach on the US Army Corps of Engineers' Sacramento River Flood Control Project, California, Levee and Channel Profiles, dated March 15, 1957, or as modified by the Corps of Engineers and shown on "as-built" drawings provided to The Reclamation Board subsequent to March 15, 1957.

EIGHTEEN: Upon completion of the project, the permittee shall submit a levee crown profile survey, certified by a licensed land surveyor or professional engineer registered in the State of California, to The Reclamation Board.

NINETEEN: The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Department of Water Resources, Reclamation District No.1000 or any other agency responsible for maintenance.

TWENTY: The permittee shall contact the Department of Water Resources by telephone, (916) 574-1213, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

TWENTY-ONE: The permittee shall provide supervision and inspection services acceptable to The Reclamation Board. A professional engineer registered in the State of California shall certify that all work was inspected and performed in accordance with submitted drawings, specifications, and permit conditions.

TWENTY-TWO: If FEMA certification of the levee by the Corps of Engineers is being considered, the project proponent should contact the U. S. Army Corps of Engineers regarding inspection of the project during construction for FEMA certification purposes.

TWENTY-THREE: The permittee shall contact the U. S. Army Corps of Engineers regarding inspection of the project as the proposed work is a modification to the existing Federal Flood Control Project and is expected to be incorporated into the adopted plan of flood control..

TWENTY-FOUR: The Reclamation Board, Department of Water Resources and Reclamation District No. 1000 shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance, inspection, or emergency repair.

TWENTY-FIVE: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, The Reclamation Board may remove the encroachment(s) at the permittee's expense.

TWENTY-SIX: The permittee should contact the U.S. Army Corps of Engineers, Sacramento District, Regulatory Branch, 1325 J Street, Sacramento, California 95814, telephone (916) 557-5250, as compliance with Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act may be required.

TWENTY-SEVEN: The permittee shall be responsible for repair of any damages to the project levee and other flood control facilities due to construction, operation, or maintenance of the proposed

project.

TWENTY-EIGHT: The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend and hold harmless the State of California, or any departments thereof, from any liability or claims of liability associated therewith.

TWENTY-NINE: If the project, or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project under direction of The Reclamation Board and Department of Water Resources, at the permittee's or successor's cost and expense.

THIRTY: Upon completion of the project, the permittee shall submit as-built drawings to: Department of Water Resources, Flood Project Inspection Section, 3310 El Camino Avenue, Suite LL30, Sacramento, California 95821.

THIRTY-ONE: No construction work of any kind shall be done during the flood season from November 1 to April 15 without prior approval of The Reclamation Board.

THIRTY-TWO: Cleared trees and brush shall be completely burned or removed from the floodway, and downed trees or brush shall not remain in the floodway during the flood season from November 1 to April 15.

THIRTY-THREE: No material stockpiles, temporary buildings, or equipment shall remain in the floodway during the flood season from November 1 to April 15.

THIRTY-FOUR: The permitted encroachment(s) shall not interfere with operation and maintenance of the flood control project. If the permitted encroachment(s) are determined by any agency responsible for operation or maintenance of the flood control project to interfere, the permittee shall be required, at permittee's cost and expense, to modify or remove the permitted encroachment(s) under direction of The Reclamation Board or Department of Water Resources. If the permittee does not comply, The Reclamation Board may modify or remove the encroachment(s) at the permittee's expense.

THIRTY-FIVE: During construction of the project, any and all anticipated or unanticipated conditions encountered which may impact levee integrity or flood control shall be brought to the attention of the Flood Project Inspector immediately and prior to continuation. Any encountered abandoned encroachments shall be completely removed or properly abandoned under the direction of the Flood Project Integrity and Inspection Branch Inspector.

THIRTY-SIX: The stability of the levee shall be maintained at all times.

THIRTY-SEVEN: Excavations below the design flood plane and within the levee section or within fifty (50) feet of the projected waterward and landward levee slopes shall have side slopes no steeper than 1 horizontal to 1 vertical. Flatter slopes may be required to ensure stability of the excavation.

THIRTY-EIGHT: A profile of the levee crown roadway and all access ramps that will be utilized for access to and from the project area shall be submitted to The Reclamation Board prior to commencement of excavation.

THIRTY-NINE: Any access ramps and utilized levee crown roadway shall be maintained in a manner

prescribed by the authorized representative of the Department of Water Resources, Reclamation District No. 1000 or any other agency responsible for maintenance.

FORTY: Any damage to the levee crown roadway or access ramps that will be utilized for access for this project shall be promptly repaired to the condition that existed prior to this project.

FORTY-ONE: Equipment used in the construction of the slurry wall shall not exceed live-load surcharge to a level that causes or contributes to the instability of the levee during construction operations.

FORTY-TWO: Slurry fluid pressures shall be carefully monitored and controlled to minimize the potential for hydrofracturing.

FORTY-THREE: The permittee shall be responsible for all damages due to settlement, consolidation, or heave from any construction-induced activities.

FORTY-FOUR: Excess bentonite or other slurry fluids shall be properly disposed of outside of the floodway. The bentonite or other slurry fluids shall not be used as backfill material for levee reconstruction.

FORTY-FIVE: Restoration of the degraded levee shall not begin until slurry wall has cured for 7 days and reached a minimum compressive strength of 300 psi or as allowed by the Corps.

FORTY-SIX: All fencing, gates and signs removed during construction of this project shall be replaced in kind and at the original locations. If it is necessary to relocate any fence, gate or sign, the permittee is required to obtain written approval from The Reclamation Board prior to installation at a new location.

FORTY-SEVEN: All temporary fencing, gates and signs shall be removed upon completion of project.

FORTY-EIGHT: Any pipe or conduit being reinstalled in the levee section or within fifty (50) feet of both the waterward and landward levee toes shall meet Title 23 standards.

FORTY-NINE: Fill on the levee slopes shall be keyed into the existing levee section with each lift.

FIFTY: Backfill material for excavations within the levee section and within fifty (50) feet of the levee toes shall be placed in 4- to 6-inch layers, moisture conditioned above optimum moisture content, and compacted to a minimum of 90 percent relative compaction as measured by ASTM Method D1557-91.

FIFTY-ONE: Density tests by a certified materials laboratory will be required to verify compaction of backfill within the levee section and within fifty (50) feet of the levee toes.

FIFTY-TWO: Imported material shall be used when constructing or reconstructing the waterside levee slope and levee crown fill areas, and no cuts shall remain in the levee section upon completion.

FIFTY-THREE: Fill material shall be placed only within the area indicated on the approved plans.

FIFTY-FOUR: All fill material shall be imported impervious material with 20 percent or more passing the No. 200 sieve, a plasticity index of 8 or more, and a liquid limit of less than 50 and free of lumps or stones exceeding 3 inches in greatest dimension, vegetative matter, or other unsatisfactory material. Fill material shall be compacted in 4- to 6-inch layers to a minimum of 90 percent relative compaction as measured by ASTM Method D1557-91.

FIFTY-FIVE: The slopes of the reconstructed levee shall be no steeper than 3 horizontal to 1 vertical on the water side and 2 horizontal to 1 vertical on the land side.

FIFTY-SIX: The reconstructed levee crown roadway and access ramps shall be surfaced with a minimum of 4 inches of compacted, Class 2, aggregate base (Caltrans Specification 26-1.02A).

FIFTY-SEVEN: Aggregate base material shall be compacted to a relative compaction of not less than 95 percent per ASTM Method D1557-91, with a moisture content sufficient to obtain the required compaction.

FIFTY-EIGHT: The project site including the levee section and access ramps shall be restored to at least the condition that existed prior to commencement of work.

FIFTY-NINE: All debris generated by this project shall be disposed of outside the floodway and off the levee section.

SIXTY: The permittee shall replant or reseed the levee slopes to restore sod, grass, or other non-woody ground covers if damaged during project work.

SIXTY-ONE: In the event existing revetment on the channel bank or levee slope is disturbed or displaced, it shall be restored to its original condition upon completion of the proposed installation.

SIXTY-TWO: In the event that levee or bank erosion injurious to the adopted plan of flood control occurs at or adjacent to the permitted encroachment(s), the permittee shall repair the eroded area and propose measures, to be approved by The Reclamation Board, to prevent further erosion.

SIXTY-THREE: The permittee shall comply with all conditions set forth in the letter from the Department of the Army dated March 7, 2007, which is attached to this permit as Exhibit A and is incorporated by reference.

SIXTY-FOUR: This permit is not valid until the permittee has resolved all comments provided by the Corps of Engineers in the letter, including all attachments, from the Department of the Army dated March 7, 2007, attached to this permit as part of Exhibit A.

SIXTY-FIVE: The permittee shall comply with all conditions set forth in the letter from Reclamation District No. 1000 received March 7, 2007, which is attached to this permit as Exhibit B and is incorporated by reference.

SIXTY-SIX: Any additional encroachment(s) in the floodway, on or in the levee section and within fifty (50) feet of the landward levee toe require an approved permit from The Reclamation Board and shall be in compliance with The Reclamation Board's regulations (Title 23 California Code of Regulations).

SIXTY-SEVEN: Upon completion of the project, the permittee shall submit to The reclamation Board proposed revisions to the Corps of Engineers, Supplement to Standard Operation and Maintenance Manual, Sacramento River Flood Control Project, Units No. 124 and 125, incorporating the slurry wall or any other system modifications implemented as part of this permit as project features.

SIXTY-EIGHT: By acceptance of this permit, the applicant (Sacramento Area Flood Control Agency) acknowledges the authority of The Reclamation Board to regulate all future encroachments along this levee reach including those that may encroach upon the modifications approved by this permit.